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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,519	03/02/2004	Andrew E. Gruber	00100.01.0077	2773
29153 7590 07/02/2007 ADVANCED MICRO DEVICES, INC. C/O VEDDER PRICE KAUFMAN & KAMMHOLZ, P.C. 222 N.LASALLE STREET CHICAGO, IL 60601			EXAMINER NGUYEN, VAN H	
			ART UNIT 2194	PAPER NUMBER
			MAIL DATE 07/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/791,519	Applicant(s) GRUBER ET AL.	
	Examiner VAN H. NGUYEN	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the application filed 03/02/2004.

Claims 1-25 are currently pending in this application.

Oath/Declaration

2. The Office acknowledges receipt of a properly signed Oath/Declaration submitted 03/02/2004.

Specification

3. Examiner requests that Applicant review the application carefully for informalities including typographical errors.

The disclosure is objected to because BRIEF SUMMARY OF THE INVENTION is missing.

Descriptive Title Required

The title of the invention is not descriptive. The title should be as "specific as possible" 37 CFR 1.72 while not exceeding "500 characters in length". The title should provide "informative value" and serve to aid in the "indexing, classifying, searching" and other

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Official identification functions. A new title is required that is clearly indicative of the invention to which the claims are directed. MPEP606.01

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not fall within one of the four enumerated categories of patentable subject matter recited in section 101 (process, machine, manufacture or composition of matter).

Claims which are broad enough to read on statutory subject matter or on non-statutory subject matter are considered non-statutory. Cf. In re Lintner, 458 F.2d 1013, 1015, 173 USPQ 560, 562 (CCPA 1972) ("Claims which are broad enough to read on obvious subject matter are unpatentable even though they also read on nonobvious subject matter.") During prosecution, applicant can amend to limit the claims to statutory subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(b) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Applicant Admitted Prior Art (AAPA)** in view of **Wilt et al.** (US 20030140179 A1).

As to claim 1:

AAPA teaches a method for processing command information, the method comprising: detecting a real time event; and causing commands in a real time event command buffer to be fetched and consumed in response to the real time event (see pp.5-6 and Figs. 1-2 and the associated text).

While teaching command buffer (command buffer 106; Fig.1), AAPA is silent on a real time event command buffer.

Wilt teaches the use of a real time event command buffer (see ¶¶0010-0012 and 0102-0112).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify AAPA with Wilt because Wilt's teaching would have provided the capability for effectively managing computational resources of coprocessors in a computing system.

As to claim 2:

AAPA teaches providing an event selector signal to a comparator; providing a plurality of event signals to the comparator; and generating an event detection signal when an event signal is equivalent to an event selector signal (see Figs. 1-2 and the associated text).

As to claim 3:

AAPA teaches providing the commands in the real time event command buffer to be processed by a command processor (see Figs. 1-2 and the associated text).

As to claim 4:

AAPA teaches the real time event includes a system command from a system command buffer processed by a command processor, the method further comprising: first consuming all of the commands within the event command buffer; and in response to processing all of the commands of the event command buffer, processing a next system command within the system command buffer (see Figs. 1-2 and the associated text).

Refer to the discussion of claim 1 above regarding a real time command buffer.

As to claim 5:

AAPA teaches detecting a second real time event; and causing commands in a second command buffer to be fetched and consumed in response to detecting the second real time event (see Figs. 1-2 and the associated text). Refer to the discussion of claim 1 above regarding a second real time command buffer.

As to claim 6:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches providing system commands to a command processor from a system command

buffer detecting a real time event; fetching commands in an event command buffer in response to the real time event; providing the commands in the event command buffer to the command processor; and consuming the real time event commands by the command processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 7:

AAPA teaches providing an event selector signal to a comparator; providing a plurality of event signals to the comparator; and generating an event detection signal when an event signal is equivalent to an event selector signal (see Figs. 1-2 and the associated text).

As to claim 8:

AAPA teaches fetching the system commands from the system command buffer; in response to detecting a real time event, pausing the fetching of the system commands; and upon the processing of all the real time event commands in the real time event command buffer, resuming the fetching of system commands from the system command buffer (see Figs. 1-2 and the associated text).

As to claim 9:

AAPA teaches detecting a second real time event; fetch commands in a second real time event command buffer; providing the commands of the second real time event command buffer to the system processor; and consuming the second real time event commands by

the system processor (see Figs. 1-2 and the associated text).

As to claim 10:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches loading a real time event into a real time event detector; providing a system command from a system command buffer to a command processor; detecting a real time event; fetching commands in the event command buffer; providing the commands of event command buffer to the system processor; and consuming the real time event commands by system processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 11:

AAPA teaches providing an event selector signal to a comparator; providing a plurality of event signals to the comparator; and generating an event detection signal when an event signal is equivalent to the event selector signal (see Figs. 1-2 and the associated text).

As to claim 12:

AAPA teaches loading a second real time event into the real time event detector (see Figs. 1-2 and the associated text).

As to claim 13:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches a command processor for processing system commands from a system command buffer; a real time event engine which monitors a plurality of event signals for a real time event; and an event command buffer, containing a plurality of real time event commands, operably coupled to the real time event engine, wherein when the real time event occurs, the real time event commands are fetched and consumed by the command processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 14:

AAPA teaches the first real time event engine comprises: a real time event detector comprising: an event table containing an event selector; a comparator operably coupled to the control register for receiving the event selector; and a plurality of engines providing the plurality of event signals to the comparator wherein the comparator compares the plurality of event signals to the event selector and produces an event detection signal when an event signal matches the event selector (see Figs. 1-2 and the associated text).

As to claim 15:

AAPA teaches the event table further contains a command buffer pointer and a length of command buffer field wherein the command buffer pointer points to a command buffer and the length of command buffer field provides the number of commands within the command buffer (see Figs. 1-2 and the associated text).

As to claim 16:

AAPA teaches one of the engines is a three-dimensional video graphics engine (see Fig. 2 and the associated text).

As to claim 17:

AAPA teaches the event table is stored in a local command processor memory (see Figs. 1-2 and the associated text).

As to claim 18:

AAPA teaches a real time event controller which programs the real time event detector with the real time event selector for the detection of the real time event (see Figs. 1-2 and the associated text).

As to claim 19:

AAPA teaches a second real time event engine which monitors the monitors the commands provided to the command processor for a second real time event; and a second real time event command buffer, containing a plurality of second real time events commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the second real time commands are fetched and consumed by the command processor (see Figs. 1-2 and the associated text).

As to claim 20:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches a command processor for processing system commands from a system command buffer; a first real time event engine which monitors a plurality of event signals for a first real time event; a first event command buffer, containing a plurality of first real time event commands, operably coupled to the first real time event engine, wherein when the first real time event occurs, the processing of the system commands is paused and the first real time event commands are fetched and consumed by the command processor; a second real time event engine which monitors the plurality of event signals for a second real time event; and a second event command buffer, containing a plurality of second real time event commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the processing of commands by the command processor is paused and the second real time event commands are fetched and consumed by the command processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 21:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches the first real time event engine comprises a first real time event detector having a first event selector and a first comparator which receives the first event selector; the second real time event engine comprises a second real time event detector having a second event selector and a second comparator which receives the second event selector;

and a plurality of engines operably coupled to the first comparator and the second comparator, whereupon when one of the event signals matches the first event selector, a first event detection signal is produced by the first comparator and when one of the event signals matches the second event selector, a second event detection signal is produced by the second comparator (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 22:

AAPA teaches one of the plurality of engines is a three dimensional graphics engine (see and Fig. 2 and the associated text).

As to claim 23:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches a first real time event engine which monitors a plurality of event signals for a first real time event; and a first event command buffer, containing a plurality of first real time event commands, operably coupled to the first real time event engine, wherein when the first real time event occurs, the processing of the system commands is paused and the first real time event commands are fetched and consumed by the command processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 24:

The rejection of claim 1 above is incorporated herein in full. Additionally, AAPA teaches a second real time event engine which monitors the plurality of event signals for

a second real time event; a second event command buffer, containing a plurality of second real time event commands, operably coupled to the second real time event engine, wherein when the second real time event occurs, the processing of commands by the command processor is paused and the second real time event commands are fetched and consumed by the command processor (see pp.5-6 and Figs. 1-2 and the associated text).

As to claim 25:

AAPA teaches the second real time event of the second real time event engine is programmed by the first real time event engine (see pp.5-6 and Figs. 1-2 and the associated text).

Conclusion

6. The prior art made of record, see PTO 892, and not relied upon is considered pertinent to applicant's disclosure. Applicant should review these references carefully before responding to this office action.

Contact Information

7. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM-

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6:00PM. The examiner can also be reached on alternative Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM THOMSON can be reached at (571) 272-3718.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://padirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for patents

P O Box 1450

Alexandria, VA 22313-1450



**VAN H. NGUYEN
PRIMARY EXAMINER**